

# Virtual Reality Box

standard

google cardboard

**MANUAL**

**3DExpert**

# VIRTUAL REALITY BOX

standard

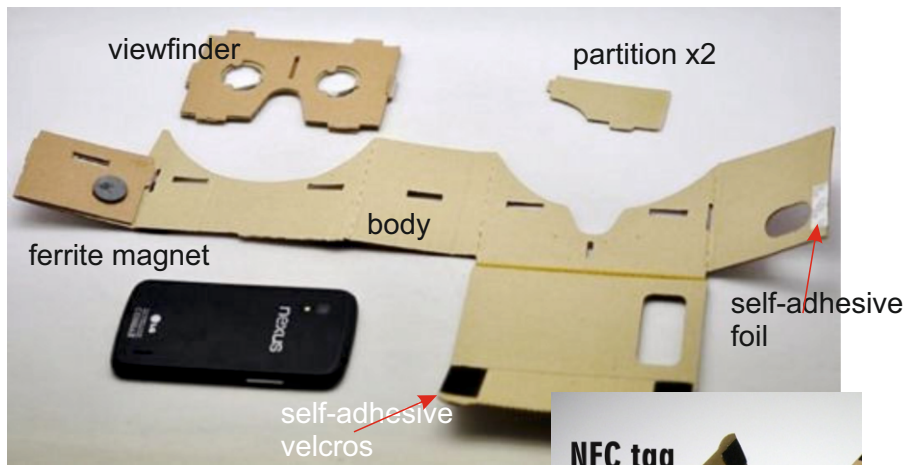
google cardboard

VERSIONS ☐ STANDARD ☐ BLACK BOX ☐ MINI

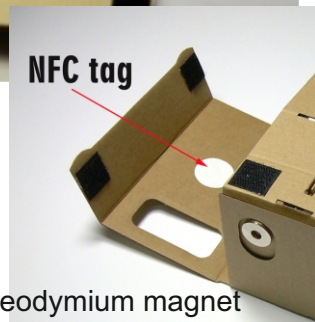
## Assembly and getting started manual

**T**hank you for buying the cardboard device, which, together with your smartphone, will transfer you to the world of virtual adventures. This very manual will quickly and smoothly help you assembly and start the system which was developed by the company Google Inc. The pattern of the cardboard exactly corresponds to the google cardboard specification. It means that if you don't find something in the manual, you will find it without any problem in the Internet typing in the browser: [google cardboard 3d](#).

### Standard elements of the set



Google cardboard consists of 3 basic cardboard elements (body, viewfinder, partition), two magnets, two sets of Velcros, NFC-tag



Magnets and NFC tag are not included in the MINI version.



Strap with fastenings for head



OTG/USB connector  
possibility of connecting a gamepad

USB/OTG cable – enables  
connecting a manipulator (gamepad)

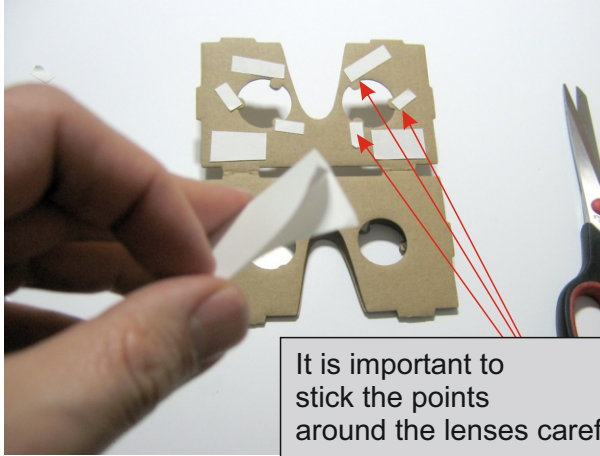
printout – a board with  
QR code for a game  
or an AR (Augmented Reality) app.



In addition, in the set there can be:

- \* straps of self-adhesive PCV foil, which enable fixing the fastenings to the strap
- \* self-adhesive plasters on the paper board- enable additional sticking of the elements that should be immobilized (e.g. partition)



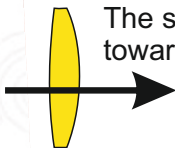
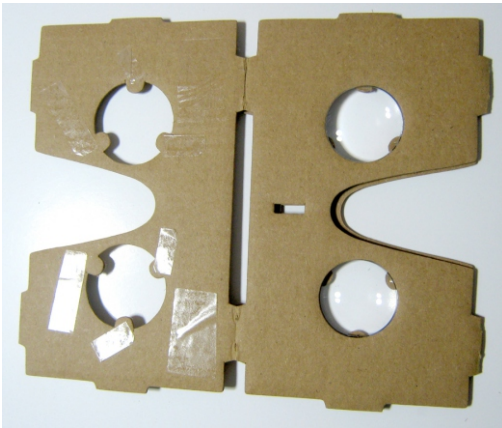


In order to assemble the viewfinder you will need scissors and a reversible sticking plaster (included in the set)

Cut the plaster into small straps. Tear off the protective paper. Stick in some places, best near the lenses.

It is important to stick the points around the lenses carefully.

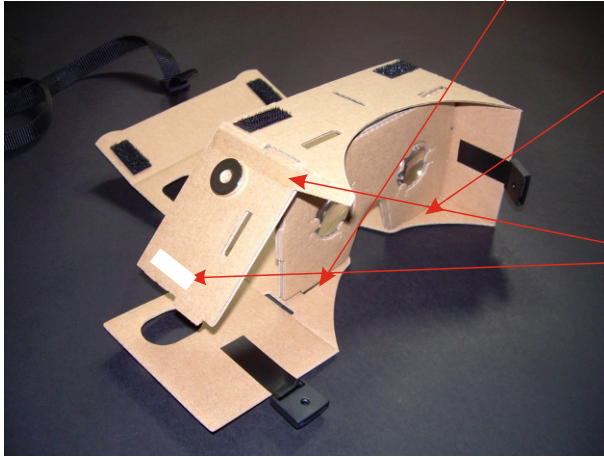
Tear off the paper protection of the plaster. Arrange lenses: the swelling side towards the phone, then fold the viewfinder into thirds.



The swelling side of the lens should be directed towards the inner side of the goggles (towards the phone)

**Very important! Remember to have clean hands and be careful while arranging the lenses and sticking the viewfinder. Contamination of the lenses can negatively influence the perception quality of the 3D view !**

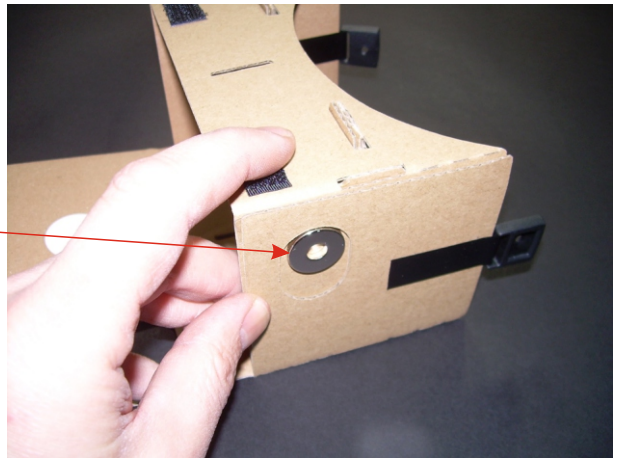
After assembling the viewfinder, let's close the body. Set the viewfinder inside the body by slipping bottom inserts of the viewfinder into bottom notches of the body.



Stick plasters onto the outer walls in some places, then the cardboard will not unfold. Should the outer wall still unfold, you can additionally use a glue.

Then close tight the outer walls to one another, the body will be joined to the viewfinder.

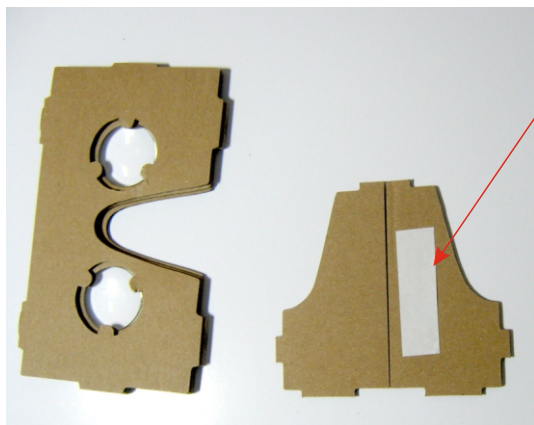
The neodymium magnet should be placed in the opening cut in the side outer wall, and the black ferret magnet should be placed on the opposite site, inside the cardboard. Stick the ferret magnet inside using a reversible sticking plaster.



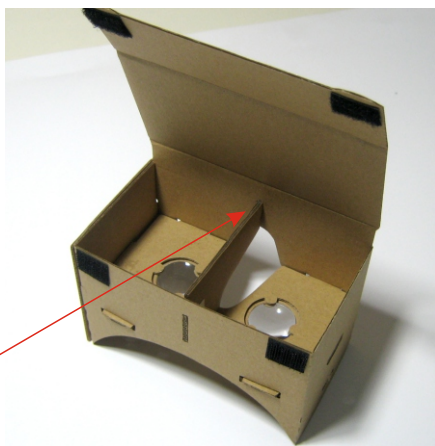
### Note:

The MINI version does not contain the magnets and openings in the walls.

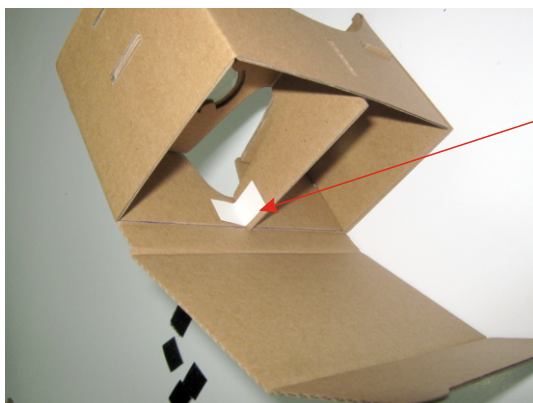
The partition has two aims. Firstly, it optically separates the right view from the left view so that the left eye could not see what the right eye can see (and vice versa). Moreover, the partition should stiffen the construction. A correct fixing and immobilizing of the partition will significantly influence not only the workmanship of the whole device, but also using of the 3D app later.



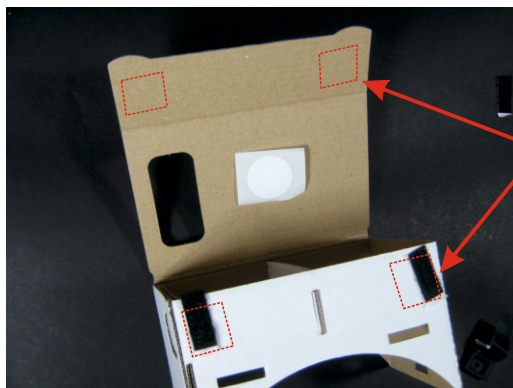
If your version contains two symmetrical notches of the partition, join them using a sticking plaster.



Slip the partition into the body so that the inserts suit the notches well.



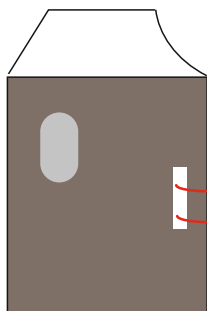
Additionally we recommend strengthening the edges by using a sticking plaster, as shown in the picture. Remember to tear off the white protective paper layer because white elements will distract the sight from the view.



Velcros are included in the set in the form of 4 straps on the self-adhesive ground, out of which 2 are velour velcros and 2 are of hook and loop type.

While choosing exact places for fixing the velcros the size of the mobile phone and the force with which the cover should press the phone need to be taken into consideration.

### Assembly of the fastenings and the strap



Interlace the strap of the self-adhesive PCV black foil through the notch on the edge of the cardboard and the opening in the fastening of the strap.



Once the fastening on the both sides of the strap has been made, the strap can be attached. Buckles of the strap on both sides enable shortening and lengthening of the strap, so the length can be adapted to your head size.

The described method is not the only one. The user can freely change the method of fixing the strap, a different strap from the one included in the set can be used. It should only be born in mind that the fastening of the strap does not lead to tearing off of the edge of the cardboard, which could result in falling the device and the mobile phone on the floor.



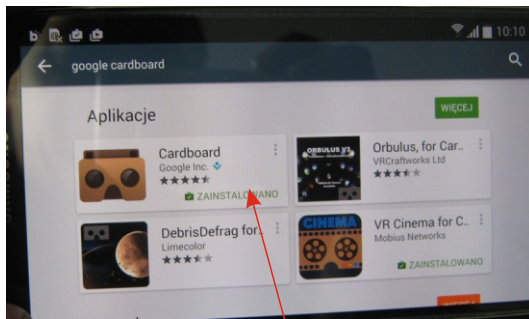
You will find Google cardboard apps in Google Play store (play.google.com)

If you haven't created an account on google.com and synchronized your smartphone with your account yet, you should do it now.

Instructions as to creating an account on google and synchronizing it with the smartphone are widely described on the Internet, so description of these procedures has been omitted in this manual.

Switch on the smartphone, connect it to WiFi. Click on the Google Play icon.

Click on the magnifying glass (search), and type in: **google cardboard**

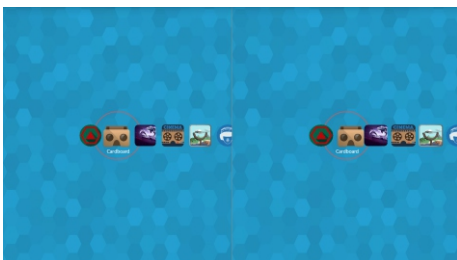


Install the Cardboard app



From now on you can install other apps offered by Google Play store. Most of them are free, but there are paid apps as well. In particular we recommend free apps such as:

- YouTube VR3D
- VR GunDefence
- DiveCityCoaster
- Nighttime Terror (awesome game)
- PR Cardboard
- VR 3D Camera



The main app, i.e. Cardboard, enables a quick choice by looking at the backlit icon and starting apps compatible with goggles which we have installed on the smartphone. In order to run up the backlit app, click the magnet (magnetic 'click' - pull the magnet downwards and release)



Augmented Reality (AR) – is a combination of the real world vision on which a computer generated image is imposed in real time. More and more google cardboard apps support this technology.

If your version include QR CODE printed, put it on the table or on the floor.



In the Google Play store look for CMOAR ARRPG app. Install it.

The game icon- as shown in the picture to the left.

Start the game, the smartphone has to have a running camera because in the goggles you can see real world image. Look at the QR code.



You will see a virtual world of knights, dragons which serve them and other creatures which you have to gain control over.

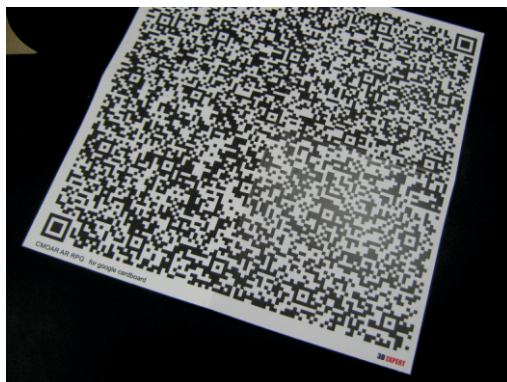
We don't want to reveal too much. Try to guess on your own how to control the characters and how to cope with the game.

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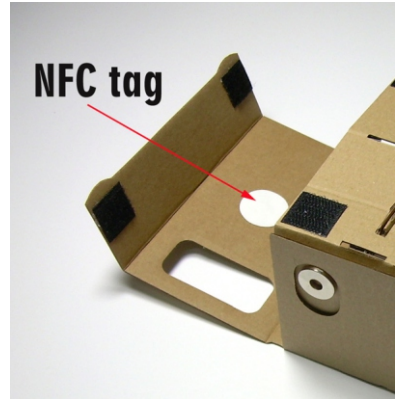
If the board with the QR code is not included in your set, you can print it out on your own.

The web link you will find in the game description in Google Play store.

Remember! The biggest the printout is, the largest game field you will get, there will also be a higher precision of rendered scenes.

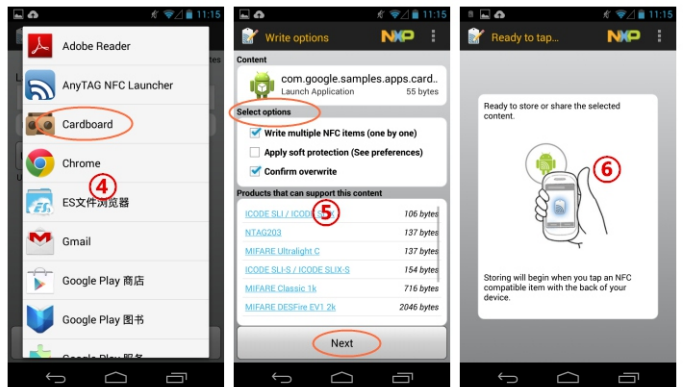
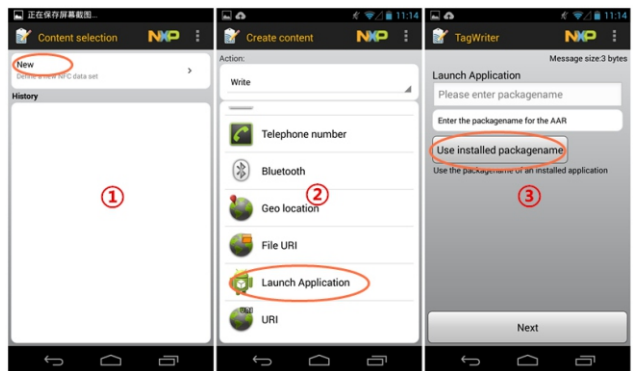


NFC is a simple device equipped with a small amount of memory (usually 0.5 kB which amounts to 512 B) in which commands for a mobile device are saved. Communication between NFC and a mobile device takes place only when the two are close to each other. In the set you have got, NFC tag is a small, self-adhesive chip which you should stick on the back cover of the device, at the place where the mobile phone has the battery. Thanks to this device, immediately after putting the smartphone into the box, the app, which you choose after programming the NFC, will start.



In order to individually program the NFC, you will need the app NFC tag writer. You can download it from Google Play store -> NFC tag writer

Install the app: NFC tag writer on your smartphone. Start the app and go to main MENU. Create NEW NFC data, choose in turn: New-> Launch Application -> Use installed packagename-> Cardboard. Click NEXT In the window WRITE- do not choose any options if you want to save date for the first time. If you want to overwrite new data and delete the old data, mark the option Confirm overwrite.



Some models of smartphones can support OTG as a classic computer USB port. It refers in particular to mobile devices with ANDROID 4.4 and newer versions.

Detailed information regarding possibilities of using these functions can be found in the manual for the smartphone.

In the set there is a cable that enables connection of two USB pointing devices (a mouse, a keyboard, a gamepad) and memory cards.

Remember that even if your smartphone does not support OTG as USB, not all games and apps are designated to gamepads.

Information about possibility of using the gamepad in a given game can be found in the game description.

USB/OTG cable is not a standard equipment of the google cardboard.

We offer BLACK BOX sets with this cable, or you can buy it as a separate element.



### Magnetic 'click'

In special notches in the cardboard two magnets has been fixed.

The inner one (ferrite magnet) is stationary. The outer one (neodymium magnet) moves downwards and due to the power of magnetism it automatically returns to the upper position.



Smartphones which correctly interpret so called 'magnetic occurrences' use the change of the position for navigating actions in some apps.

In the smartphones that are not on the compatibility list there is a possibility that this function does not work.

**Apple** iPhone 4, 4S, 5, 5C + 5S

**Google/LG** Nexus 4 + 5

**HTC** Eco 3D, One (Mini, V, S, X, X+), Sensation, Sensation XE, Velocity 4G

**Huawei** Ascend D2, Ascend G 615 + P1

**Nokia** Lumia 900, 920,

**iOcean** X7

**LG** Optimus 3D Max (P720), Optimus 4X HD (P880),

Optimus G (E975), Optimus G Pro + P940 Prada 3

**Samsung** Aktiv S, Galaxy: Ace 3, Beam, S2, S3, S3 Mini, W (Exhibit), S4 (Active, Mini), S5,

**Sony** Xperia S, SP, T + Z1, Xperia L, Z, ZL, V,

**Wiko** Highway,

**Xiaomi** Mi3,

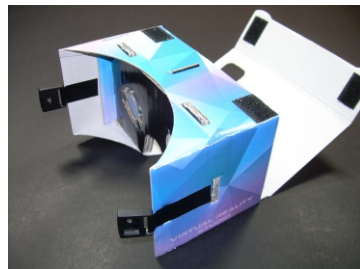
**Micromax** Canvas Knight A350,

**Karbons** Titanium Hexa,

**Alcatel** One Touch Idol Ultra,

**Lenovo** K900,

**ZTE** Grand S,



## Recommended precautions !



1. After putting the smartphone in the box make sure that the smartphone is fixed steadily, and sudden head movements do not cause its falling out. If you have doubts as to the safety fixing of the smartphone, additionally protect the back wall using a sticky tape.
2. Make sure that nearby there are not any objects that can be knocked over or damaged while you are wearing the goggles.
3. A long-lasting using of the goggles, watching 3D images directly in front of the eyes can cause labyrinth disorders, problems with balance, dizziness, nausea, eye pain and/or headache. In case of the symptoms, take a break.
4. The product is made of cardboard. It is therefore sensitive to humidity, water, it is not resistant to mechanical changes. Deteriorations, creases, flooding with liquids etc. cannot form the basis for a complaint.